

Title (en)

MOTOR-INTEGRATED FAN, AND VERTICAL TAKEOFF AND LANDING CRAFT

Title (de)

MOTORINTEGRIERTES GEBLÄSE UND VERTIKAL STARTENDES UND LANDENDEN FLUGZEUG

Title (fr)

VENTILATEUR INTÉGRÉ À UN MOTEUR, ET ENGIN DE DÉCOLLAGE ET D'ATERRISSAGE VERTICAL

Publication

EP 3878737 A1 20210915 (EN)

Application

EP 19897398 A 20191210

Priority

- JP 2018233717 A 20181213
- JP 2019048227 W 20191210

Abstract (en)

The present invention provides a motor-integrated fan that suctions air through a suction port and blows out the suctioned air through a blow-out port, wherein: the motor-integrated fan comprises a shaft part provided in the center of a rotation shaft, a rotation part 12 that rotates about the shaft part, a duct 13 provided to the outer circumference of the shaft part. A motor 14 that causes the rotation part 12 to rotate, a coil 46 that emits heat due to the operation of the motor 14, and a cooling unit 17 that cools the coil 46 using cooling air; the cooling unit 17 includes an air intake port 51 that takes the cooling air in, an air discharge port 52 that discharges the cooling air, and a cooling flow path 53 extending from the air intake port 51 via the coil 46 to the air discharge port 52; and the air discharge port 52 is provided at a position at which the pressure is more negative than at the air intake port 51.

IPC 8 full level

B64C 27/16 (2006.01); **B64C 29/00** (2006.01); **B64D 27/24** (2006.01); **F04D 29/32** (2006.01); **F04D 29/58** (2006.01); **H02K 7/14** (2006.01); **H02K 9/06** (2006.01); **H02K 9/22** (2006.01); **H02N 11/00** (2006.01)

CPC (source: EP US)

B64C 11/001 (2013.01 - EP); **B64C 29/00** (2013.01 - US); **B64D 27/24** (2013.01 - EP US); **B64D 33/02** (2013.01 - US); **B64D 33/04** (2013.01 - US); **B64D 33/08** (2013.01 - EP US); **B64U 30/20** (2023.01 - EP US); **B64U 50/19** (2023.01 - EP US); **F04D 25/02** (2013.01 - US); **F04D 25/066** (2013.01 - EP); **F04D 25/082** (2013.01 - EP); **F04D 29/5806** (2013.01 - EP US); **F04D 29/681** (2013.01 - EP); **F04D 29/687** (2013.01 - EP); **H02K 7/14** (2013.01 - EP); **H02K 9/06** (2013.01 - EP); **H02K 9/227** (2021.01 - EP US); **B64D 2033/024** (2013.01 - US); **Y02T 50/60** (2013.01 - EP)

Cited by

EP3875369A4; EP4253251A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3878737 A1 20210915; JP 2020093706 A 20200618; JP 7182449 B2 20221202; US 11851197 B2 20231226; US 2021323688 A1 20211021; WO 2020122056 A1 20200618

DOCDB simple family (application)

EP 19897398 A 20191210; JP 2018233717 A 20181213; JP 2019048227 W 20191210; US 201917312592 A 20191210